

April 24, 2007

Mr. Charles Terreni Chief Clerk/Administrator Public Service Commission of South Carolina P. O. Drawer 11649 Columbia, South Carolina 29211

Re:

Docket No. 2005-385-E

Direct Testimony of Robert P. Evans

Dear Mr. Terreni:

Enclosed for filing please find the Direct Testimony of Progress Energy Carolinas, Inc.'s witness Robert P. Evans in the above-referenced docket.

THIS DOCUMENT IS AN EXACT DUPLICATE, WITH THE EXCEPTION OF THE FORM OF THE SIGNATURE, OF THE E-FILED COPY SUBMITTED TO THE COMMISSION IN ACCORDANCE WITH ITS ELECTRONIC FILING INSTRUCTIONS.

Very truly yours,

/s/

Len S. Anthony Deputy General Counsel – Regulatory Affairs

LSA:mhm

Enclosure

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## BEFORE

# THE PUBLIC SERVICE COMMISSION OF

# SOUTH CAROLINA

## **DOCKET NO. 2005-385-E**

April 24, 2007

	IN RE	Petition of the Office of Regulatory Staff to Establish Dockets to Consider Implementing the Requirements of Section 1251 (Net Metering and Additional Standards) of the Energy Policy Act of 2005  DIRECT TESTIMONY OF ROBERT P.  EVANS ON BEHALF OF CAROLINA POWER AND LIGHT COMPANY D/B/A PROGRESS ENERGY CAROLINAS, INC.
1	Q.	PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS AND THE
2		BUSINESS RELATIONSHIP WITH CAROLINA POWER AND LIGHT
3		COMPANY.
4		
5	A.	My name is Robert P. Evans and my business address is 411 Fayetteville Street,
6		Post Office Box 1551, Raleigh, North Carolina 27602. I am employed as a Senior
7		Business Financial Analyst - within the Progress Energy Service Company,
8		LLC's Corporate Planning Department. I have been directly employed by
9		Progress Energy Services Company since July 15, 1999.
10		
11	Q.	PLEASE BRIEFLY STATE YOUR EDUCATIONAL BACKGROUND AND
12		EXPERIENCE.
13		
14	A.	I graduated from Iowa State University ("ISU") in 1978 with a Bachelor of
15		Science Degree in Industrial Administration and a minor in Industrial
16		Engineering. As a part of my undergraduate work, I participated in both the
17		graduate level Regulatory Studies Programs sponsored by American Telephone
18		and Telegraph Corporation and graduate level study programs in Engineering
19		Economics. Subsequent to my graduation from ISU I received additional

Engineering Economics training at the Colorado School of Mines, completed the NARUC Regulatory Studies program at Michigan State, and completed the Advanced AGA Ratemaking program at the University of Maryland. I am currently working on a Renewable Energy Technology certification from North Carolina State University.

Upon graduation from ISU, I joined the Iowa State Commerce Commission, now known as the Iowa Utility Board ("IUB"), in the Rates and Tariffs Section of the Utilities Division. During my tenure with the IUB, I held several positions, including Senior Rate Analyst in charge of Utility Rates and Tariffs and Assistant Director of the Utility Division. In those positions I provided testimony in gas, electric, water and telecommunications proceedings as an expert witness in the areas of rate design, service rules, and tariff applications.

In 1982, I accepted employment with City Utilities of Springfield, Missouri, as an Operations Analyst. In that capacity, I provided support for rate-related matters associated with the municipal utility's gas, electric, water and sewer operations. In addition, I worked closely with its load management and energy conservation programs. In 1983, I joined the Rate Services staff of the Iowa Power and Light Company, now known as MidAmerican Energy, as a Rate Engineer. In this position, I was responsible for the preparation of rate related filings and presented testimony on rate design, service rules, and accounting issues before the IUB.

In 1986, I accepted employment with Tennessee-Virginia Energy Corporation, which is now known as the United Cities Division of ATMOS Energy, as Director of Rates and Regulatory Affairs. While in this position, I was responsible for regulatory filings, regulatory relations, and customer billing. In 1987, I went to work for the Virginia State Corporation Commission in the Division of Energy Regulation as a Utilities Specialist. In this capacity I worked with electric and

1		natural gas issues and provided testimony on cost of service and rate design
2		matters brought before that regulatory body.
3		
4		In 1988, I joined North Carolina Natural Gas Corporation ("NCNG") as its
5		Manager of Rates and Budgets. Subsequently, I was promoted to Director-
6		Statistical Services in its Planning and Regulatory Compliance Department. In
7		that position, I performed a variety of work associated with financial, regulatory,
8		statistical analysis, and presented testimony on a variety of issues before the North
9		Carolina Utilities Commission. I held that position until the closing of NCNG's
10		merger with Carolina Power and Light Company, the predecessor of Progress
11		Energy Corporation, on July 15, 1999.
12		
13	Q.	WHAT ARE YOUR CURRENT RESPONSIBILITIES WITH PROGRESS
14		ENERGY CORPORATION?
15		
16	A.	I provide Progress Energy Carolinas. Inc. ("PEC") and Progress Energy Florida,
17		Inc. with rate and regulatory support in their state and federal venues.
18		
19	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
20		
21	A.	The purpose of my testimony is to propose a net metering tariff to be approved by
22		the Commission if it decides that net metering is in the public interest.
23		
24	Q.	IS PEC'S PROPOSED NET METERING TARIFF CONSISTENT WITH THE
25		NET METERING STANDARD ADVOCATED BY WITNESS WRIGHT?
26		
27	A.	Yes, the principles and provisions embodied in PEC's Net Metering Rider NM-3,
28		attached to my testimony as Exhibit 1, are consistent with the net metering

1 standard proposed by Dr. Julius A. Wright in Section V. of his testimony in this proceeding filed on April 24, 2007 on behalf of PEC; Duke Power Company LLC 2 d/b/a Duke Energy Carolinas LLC ("Duke Energy Carolinas"); and South 3 4 Carolina Electric & Gas Company ("SCE&G"). 5 6 WILL YOU PLEASE PROVIDE AN OVERVIEW OF THE NET METERING Q. 7 RIDER? 8 9 PEC's Net Metering Rider NM-3 offers net metering service to residential and A. 10 nonresidential customers. The terms and conditions of Rider NM-3 are identical to the North Carolina tariff and are consistent with the terms and conditions 11 advocated by Witness Wright and supported by Witness Watts in their testimony. 12 13 14 Under this proposal, net metering would be available to any utility customer that 15 owns and operates a solar photovoltaic, wind-powered, micro-hydro driven or biomass-fueled renewable energy facility. The customer may install generation 16 17 capacity of up 20 kilowatts (kW) for a residential customer-generator and 100 kW 18 for a non-residential customer-generator. The contract period for taking service 19 under the net metering tariff would be one year, and would renew thereafter for 20 successive one-year periods, with appropriate termination provisions for both

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parties.

The renewable energy facility would be interconnected and operated in parallel with an electric utility's distribution system in accordance with the "Standard for Interconnecting Small Generation 100 kW or less with Electric Power Systems" (hereinafter "Interconnection Standard") as approved by this Commission in Docket No. 2005-387-E. The net metering service to customer-generators will be available on a first-come, first-served basis up to an aggregate limit of 0.2% of PEC's South Carolina jurisdictional retail peak load for the prior calendar year. In addition to the reasons cited by Witness Wright, we believe that both a site limit and system limit on the total generation installed are necessary to allow PEC to gain experience with this new technology and its impacts on system load and the rates paid by other ratepayers.

Q. EXPLAIN HOW A SMALL CUSTOMER-GENERATOR REQUESTS
 SERVICE UNDER THE NET METERING RIDER.

A. The customer would first need to execute and submit an "Application to Interconnect Small Generation 100kW or Less" that sets forth the basic information regarding the customer's generation and electrical installation scheme. PEC would then prepare and present the customer with an "Interconnection Agreement for Small Generation Less than 100 kW" to describe the specific installation arrangement. The Agreement would include the "Interconnection Standard", which describes the conditions related to interconnection of the customer's generation with the utility's electrical system.

1	PEC would then install a special net metering time of use meter to support the net
2	metering billing arrangement. This process is described on PEC's external
3	website (http://www.progress-energy.com/custservice/carres/renewables/netmetering.asp). The
4	external website also provides additional information regarding renewable energy
5	resources and other rate options available to customers with generation.

# 7 Q. HOW IS RETAIL SERVICE PROVIDED IN CONJUNCTION WITH THE PROPOSED NET METERING RIDER?

A.

A customer-generator that desires to net meter will receive service under a time of use schedule that includes demand rates. Residential customers would receive service under Residential Service Time-Of-Use (R-TOUD) Schedule while non-residential customers would receive retail service under the Small General Service Time-Of-Use (SGS-TOU) Schedule. As noted above, PEC would install a single bi-directional meter which independently records the flow of electricity in each direction through the meter. As noted by Witness Wright, the use of a demand-based time-of-use schedule minimizes cross-subsidization by recognizing the value in on-peak and off-peak electricity and better ensures that the customers makes a contribution to the actual facilities installed to provide electric service.

Q. DESCRIBE HOW THE NET METERING CUSTOMER-GENERATOR'S BILL WOULD BE CALCULATED.

If the electricity supplied by the utility exceeds the electricity delivered to the grid by the customer-generator during a monthly billing period, the customer-generator would be billed for the net electricity supplied by the utility, including any demand and other charges under the applicable schedule. It is important to note that on-peak excess generation is used to offset on-peak usage and off-peak generation is used to offset off-peak usage. However, any remaining on-peak generation in excess of on-peak usage is used to offset any off-peak generation shortfall.

A.

If the electricity delivered to the grid by the customer-generator exceeds the electricity supplied by the utility during a monthly billing period, the customer-generator would be billed for the applicable demand and other charges for that billing period and credited for the excess kilowatt-hours (kWh) generated during a subsequent billing period. PEC will not charge the customer-generator any standby, metering, or other fees or charges other than those approved for all customers under the applicable time-of-use demand rate schedule. There may be rare situations where additional facility charges may be applicable if the customer's generator adversely impacts the service to neighboring customers, but this is not anticipated with systems that meet the Interconnection Standards. Any kWh credit would be applied to the following billing period, however any excess usage not used to offset consumption will be reset to zero each May 31<sup>st</sup> at the beginning of the time-of-use schedule summer billing period. Similarly, any renewable energy credits (REC), or "green tags," associated with this excess

2		balance is zeroed out.
3		
4	Q.	HOW DOES THE NET METERING RIDER PROPOSED BY PEC IN THIS
5		DOCKET COMPARE TO THE NET METERING RIDER IN USE IN NORTH
6		CAROLINA?
7		
8	A.	The Net Metering Rider is identical to the North Carolina version except for
9		references to the specific state. The Net Metering Rider was filed jointly by the
0		North Carolina utilities and was approved by the North Carolina Utilities
1		Commission in Docket No. E-100, Sub 83, and is presently in use in North
2		Carolina. Approval of these Net Metering Standards by the South Carolina Public
3		Service Commission would thus result in a unified, consistent, approach to billing
4		options available to customers with generation that would be used throughout the
5		two Carolinas.
6		
17	Q.	DOES THE PROPOSED NET METERING RIDER ELIMINATE THE COST
18		SUBSIDIES DISCUSSED IN WITNESS WRIGHT'S TESTIMONY?
19		
20	A.	No, it does not. Although, the inherent cost subsidies have been minimized
21		through the use of time differentiated rates and seasonal banking limitations.
22		

generation would also be granted to the utility when the excess generation credit

1

1	Q.	IS IT PEC'S POSITION, THEN, THAT IF THE COMMISSION DECIDES NET
2		METERING IS IN THE PUBLIC INTEREST IT SHOULD ADOPT THE NET
3		METERING RIDER NM-3 FOR USE IN ITS SOUTH CAROLINA
4		JURISDICTION?
5		
6	A.	Yes it is.
7		
8	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
9		
10	A.	Yes, it does.

### **BEFORE**

### THE PUBLIC SERVICE COMMISSION OF

### SOUTH CAROLINA

### DOCKET NO. 2005-385-E

IN RE: Petition to Establish Docket to Consider	)	
Implementing the Requirements of:	)	
Section 1251 (Net Metering and Additional	)	CERTIFICATE OF SERVICE
Standards) of Energy Policy Act of 2005	Ś	

I, Marsha H. Manning, employee of PEC, hereby certify a copy of PEC's Direct Testimony of Robert P. Evans has been placed in the U. S. Mail on this date, to the parties of record at the addresses shown below, with sufficient postage attached:

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This the 24th day of April, 2007.

Marsha H. Manning

Senior Legal Secretary to Len S. Anthony